Industry Canada Industrie Canada

Canada's Competitiveness in the Global Economy

Presentation to the Public Policy Forum

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Deputy Minister
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March 2, 2001

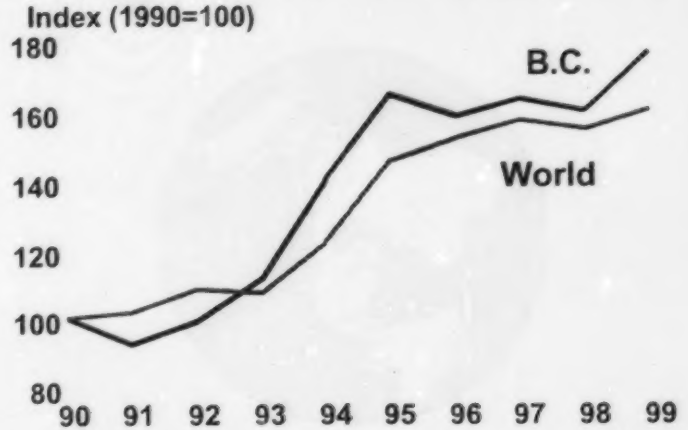
Canada

Globalization is not a new phenomenon...

102-05935

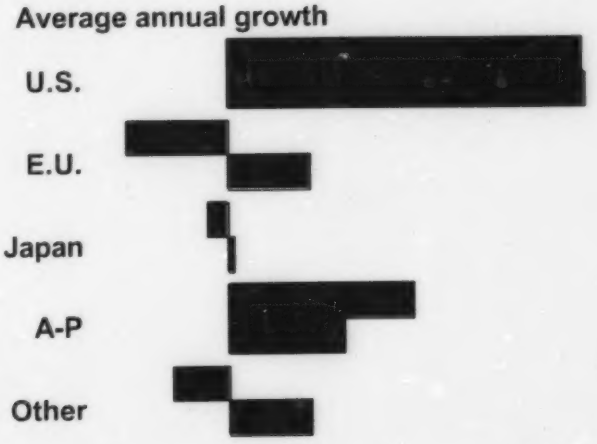
- What is new is the current depth and breadth of globalization, as cross-border flows of trade and investment increase rapidly.
- For Canada, and British Columbia, globalization has translated into greatly increased linkages with the U.S.
- BC exports to the U.S. rose 12% per year over the 1990s. The U.S. market accounted for just under 70% of all BC exports in 1999, up from 42% in 1990.

BC/World merchandise exports



Source: Industry Canada compilations based on data from WTO.

BC export growth by destination, 1990-99



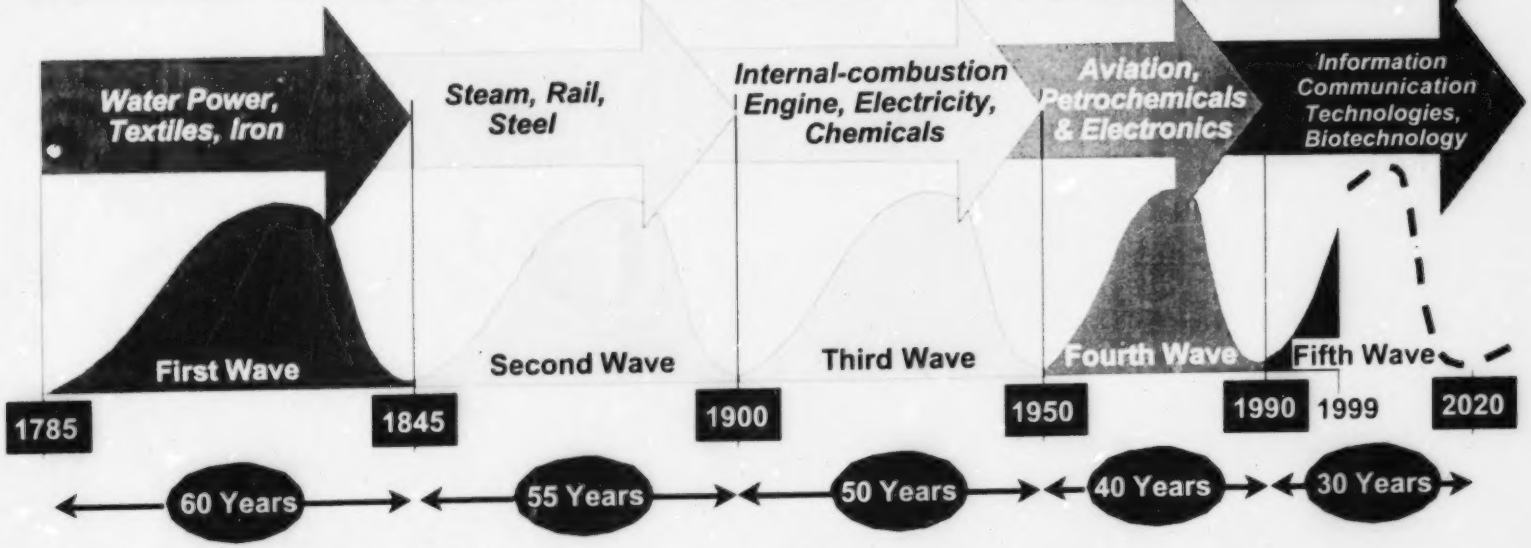
...but the pace of technological change has accelerated

- Rapid economic growth comes in waves:
  - linked directly to major technological changes
  - fuelled by a few leading-edge industries.
- The potential growth benefits from new technology are enormous, but go mostly to countries and industries which are first adopters — not followers.

"Today, America gets more than half its economic growth from industries that barely existed a decade ago -- such is the power of innovation, especially in the information and biotechnology industries."

The Economist, February 20, 1999

Surf's up — technological change is accelerating!

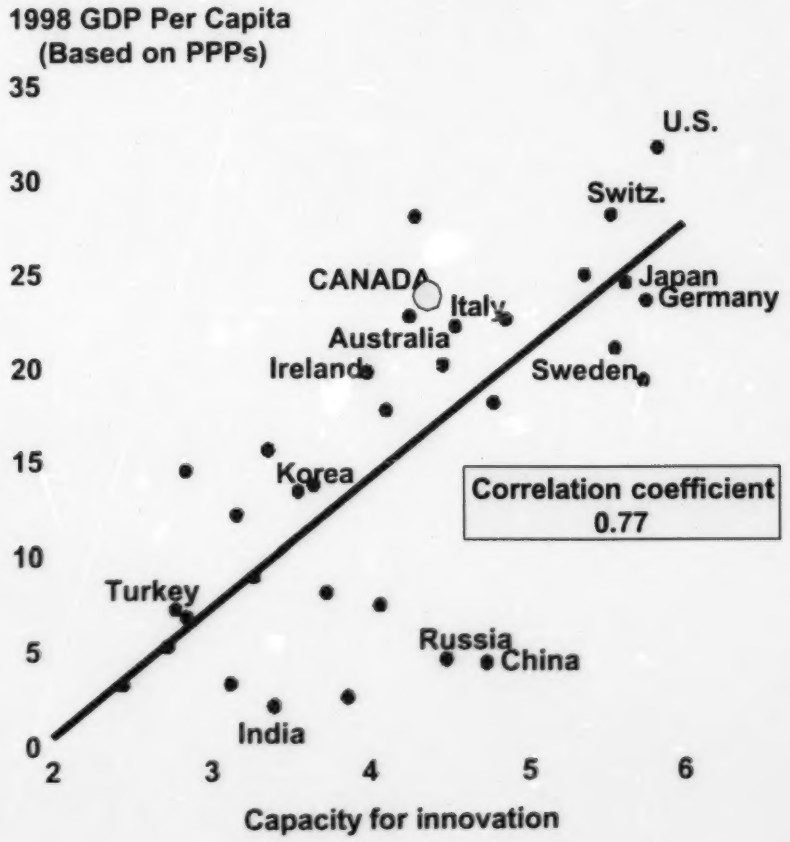


Source: The Economist, February 20, 1999

Innovation is key to a rising standard of living...

- Relationship between innovation and standard of living is strong and direct.
  - Innovation is key driver of productivity.
  - Productivity growth is, in turn, primary mover of living standards.
- The message is clear – more innovative countries are richer.

Relationship between innovation and incomes, 1998

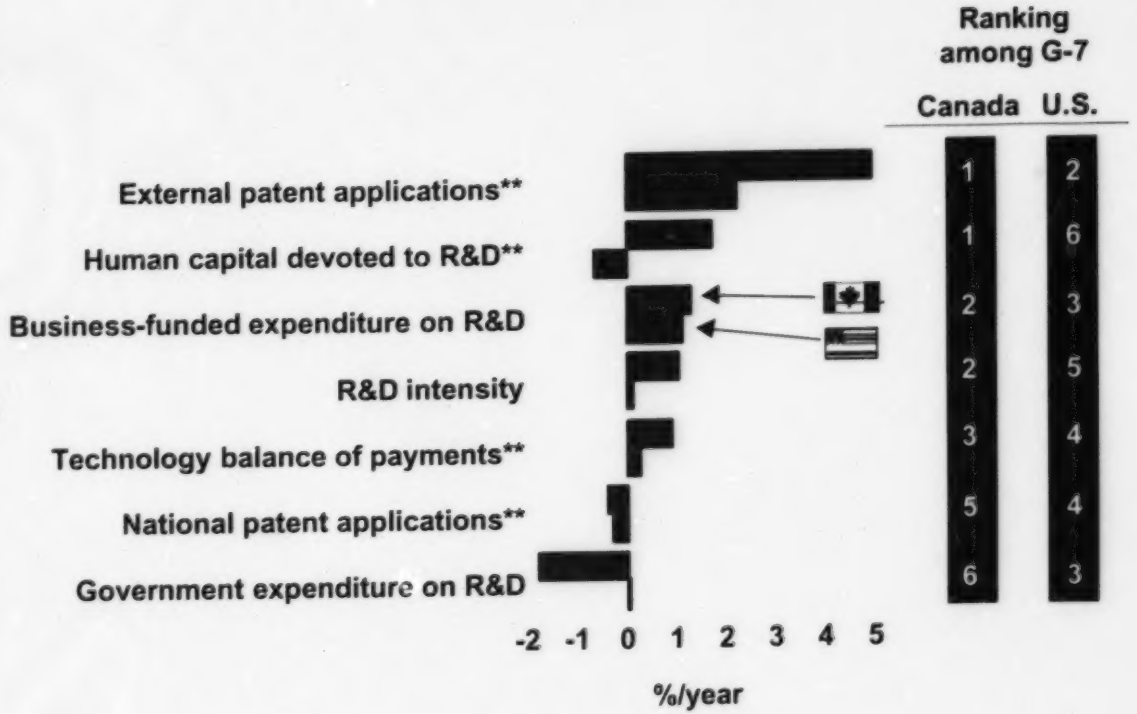


Source: Global Competitiveness Report 1999

...and Canada has been investing heavily in innovation...

- **Over recent years, Canada has made great strides in closing its innovation gap with its major competitors.**
  - **Canada has had the fastest rate of growth of workers devoted to R&D and of external patent applications among the G-7 countries.**
  - **R&D expenditures (especially by business) have also increased at an impressive pace – second among the G-7.**

Changes in Canada's innovation performance (Growth relative to G7, 1981-97*)



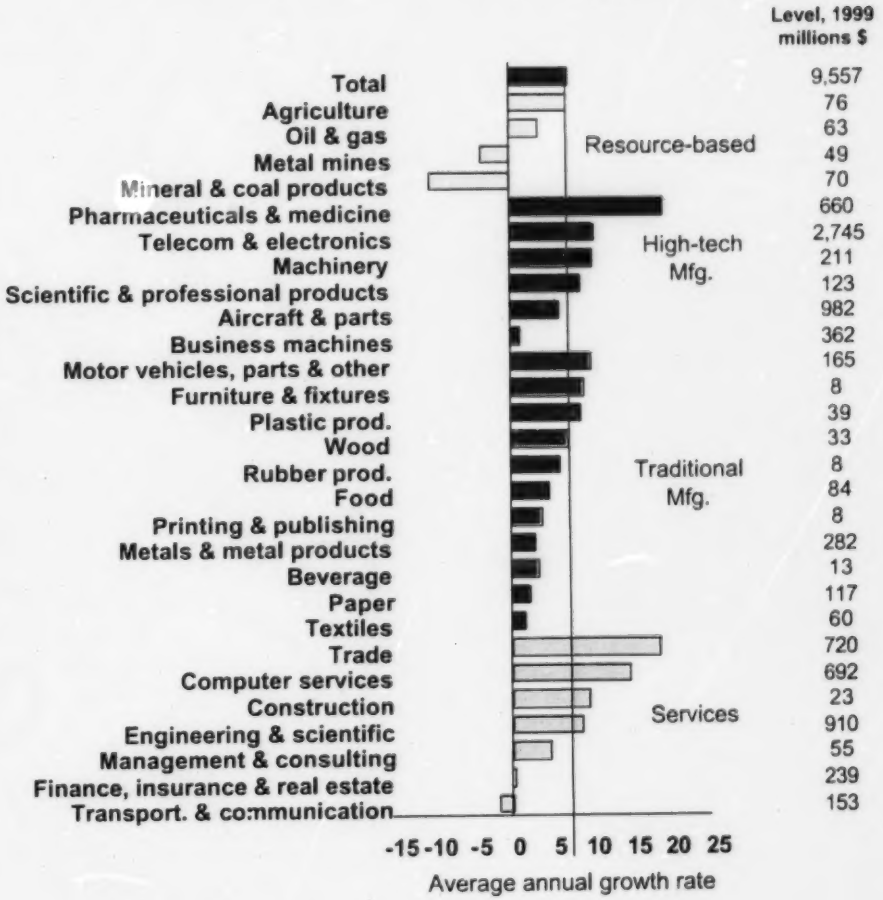
* Or latest year available
** Adjusted by labour force
Source: OECD, Main Science and Technology Indicators 1999-2; and Conference Board, 1999, 1st Annual Innovation Report.

...across all industrial sectors

- **In fact, virtually all industries are undergoing major changes in technologies.**
- **This is contributing to improvements in product quality, and in the increased versatility and flexibility of our industries.**

Technological change is embraced by high-tech sectors as well as traditional sectors such as Trade and Oil & Gas.

Growth in R&D spending, %, 1991-99



Source: Statistics Canada, Industrial Research & Development, 1999 Intentions

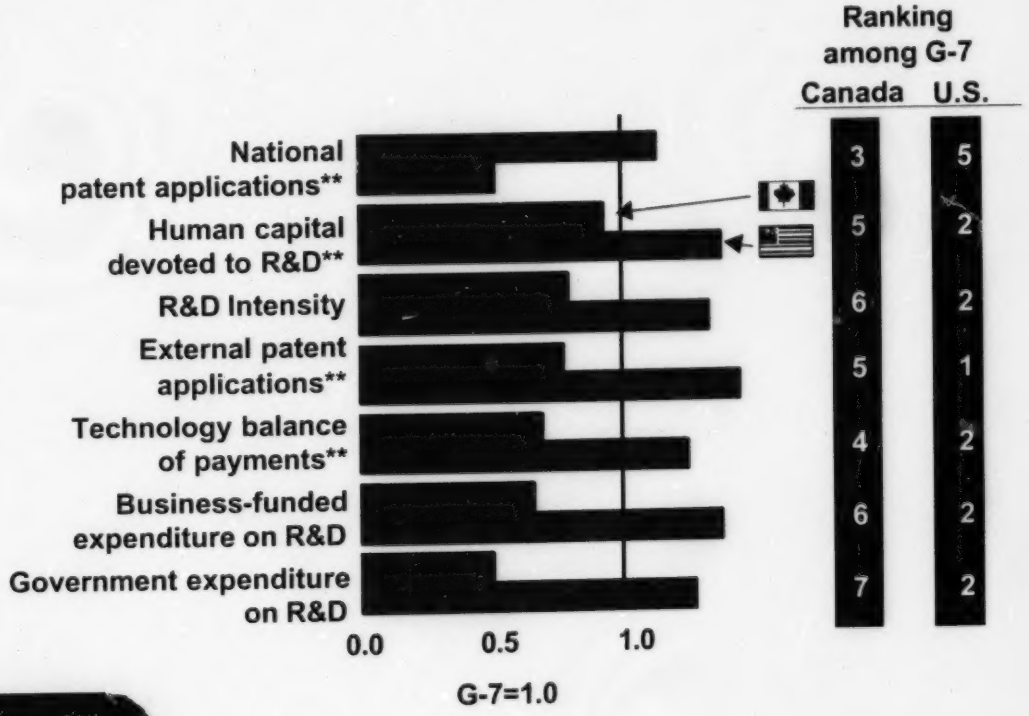
Still, we face an innovation gap...

- Although the pace of innovation has been relatively faster in Canada than most other G-7 countries, its level of innovation capacity still remains near the bottom.
- Canada should not become complacent. We need to become more innovative at a faster pace – our competitors are not standing still!
- In particular, there still exists a significant innovation gap between Canada and our main competitor, the U.S.

"Canadian companies must make significant progress in their innovation performance. If they do so, ... they will be more productive and generate more wealth and jobs."

Conference Board of Canada
Innovation Report, 2000

Canada's innovation performance
(Standing relative to G-7, 1997*)

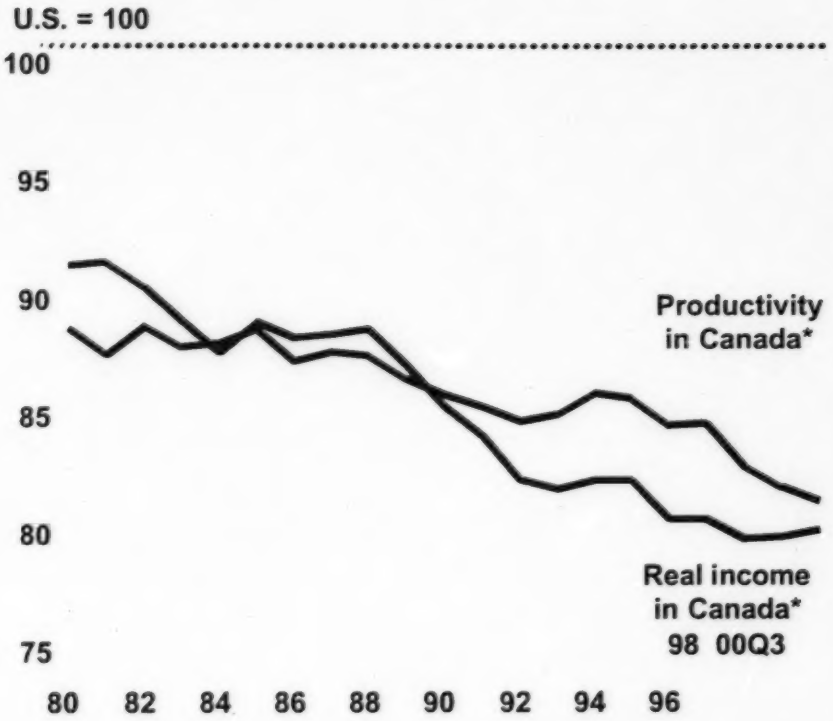


* Or latest year available
** Adjusted by labour force
Source: OECD, Main Science and Technology Indicators 1999-2

...which results in lower productivity and incomes

- Over past two decades, the real income gap between Canada and U.S. has widened:
  - risk that trend continues,
  - largely due to widening productivity gap.
- Need stronger productivity performance to boost standard of living and broaden societal range of choices.
- Canada's innovation record largely explains the gap in productivity performance between Canada and the U.S.

Trends in Canada-U.S. productivity and real income



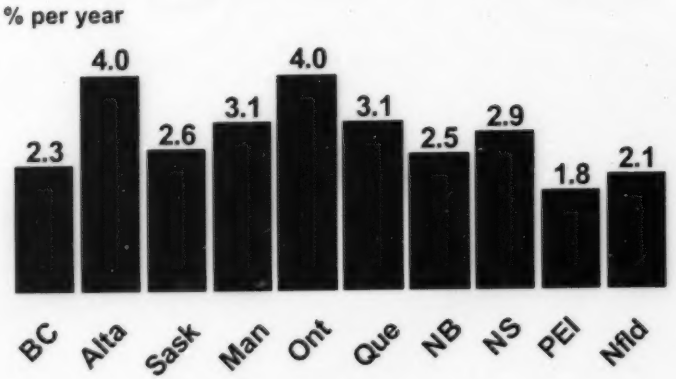
* Productivity is measured by real GDP per employed civilian; real income is measured by real GDP per capita; Canadian values were converted to 1996 US$ using 1996 PPPs.

Source: Statistics Canada and U.S. Bureau of Economic Analysis

BC has lagged behind in many areas

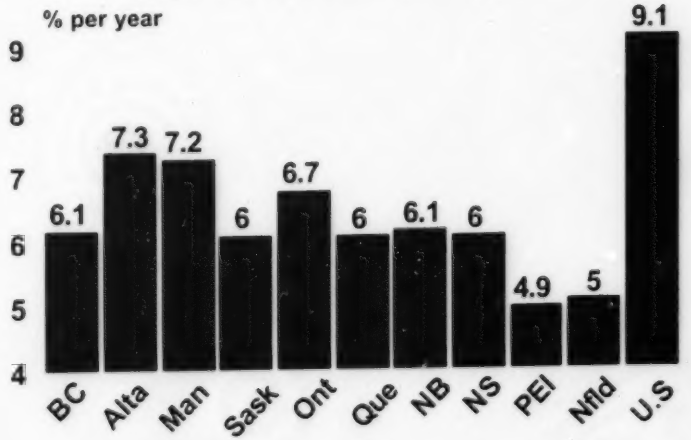
- In terms of growth, BC has lagged behind most other provinces over the past five years.
  - Part of this can be attributed to the impact of the Asian financial crisis on the BC economy.
- However, investment in M&E has lagged behind that of Alberta and Ontario.
  - Just as importantly, BC investment is significantly below the U.S. average.
- B.C. productivity has fallen relative to the rest of Canada. It was 6% above the national average in 1981, but dropped to 10% below by 1999.

Real GDP growth, 1995-99



Source: Real GDP at Market Prices, Statistics Canada

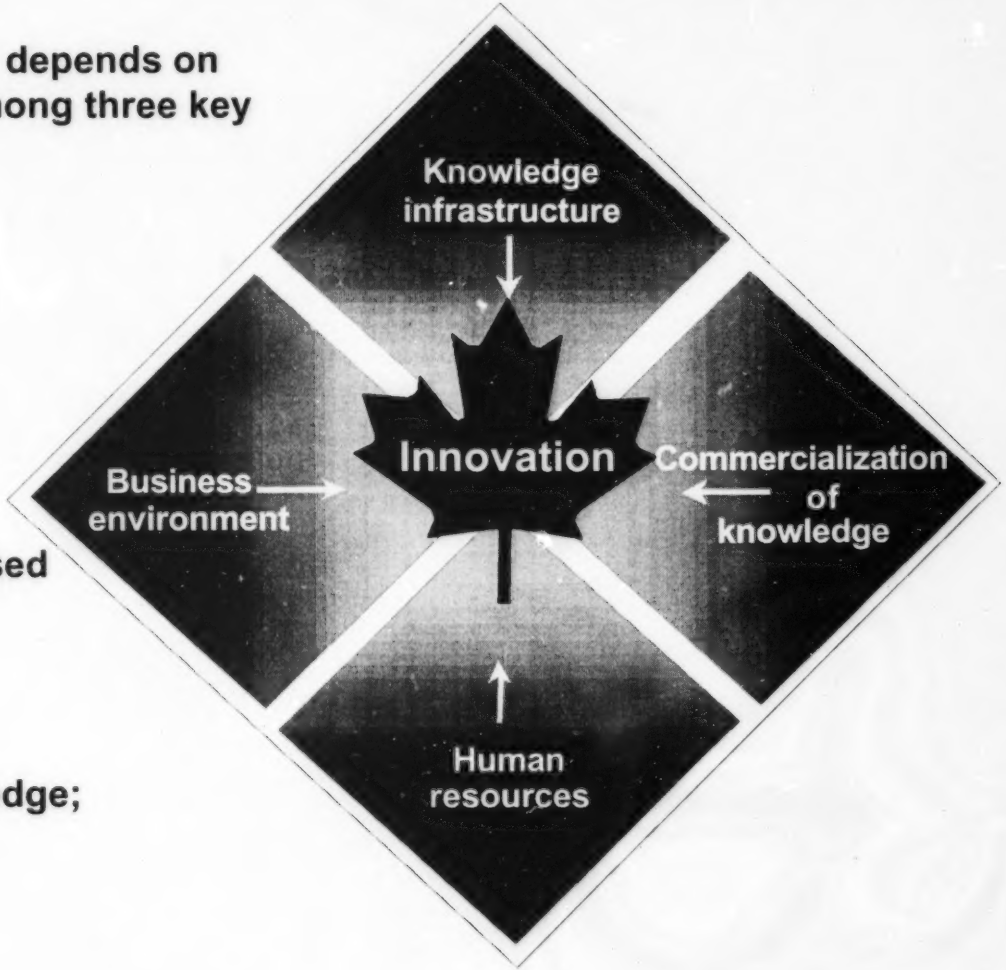
Investment in M&E, 1992-99 (Share in real GDP)



Source: Statistics Canada

The federal government's innovation strategy...

- The Canadian innovation system depends on strengths in and partnerships among three key sectors:
  - governments
  - universities
  - the private sector
- The federal government's strategy for innovation has focused on four inter-related elements:
  - Knowledge infrastructure;
  - Commercialization of knowledge;
  - Human resources; and
  - Business environment.



...involves building up the knowledge infrastructure...

- Research and development is the foundation for new products and processes.

Key investments

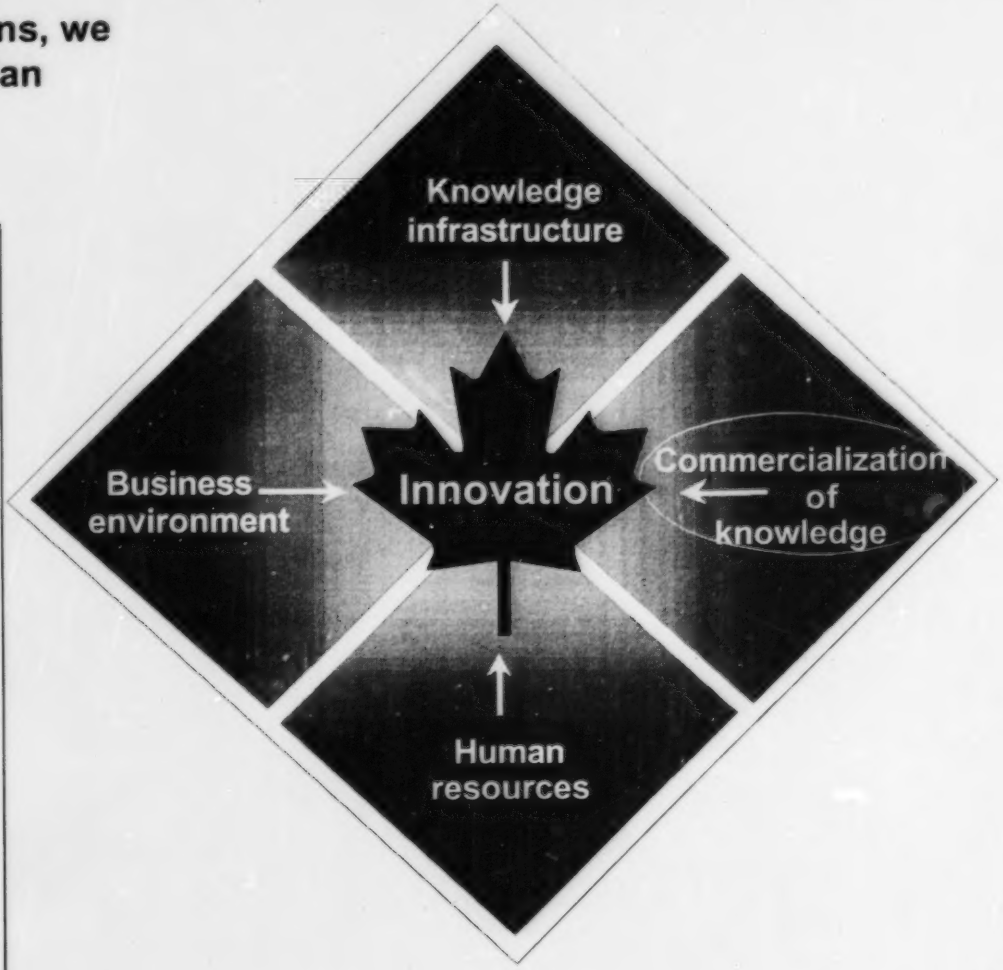
- Canada Research Chairs
- Federal granting councils: new resources
- Canadian Institutes for Health Research
- Canada Foundation for Innovation
- Genome Canada
- Biotechnology R&D
- Connectedness Agenda
- Government information products, e.g. Strategis, Green Lane, ACEIS, Health Canada Online

...and helping bring research to market

- **To maximise the returns to Canadians, we must capture the benefits of Canadian innovation investments in Canada.**

Key investments

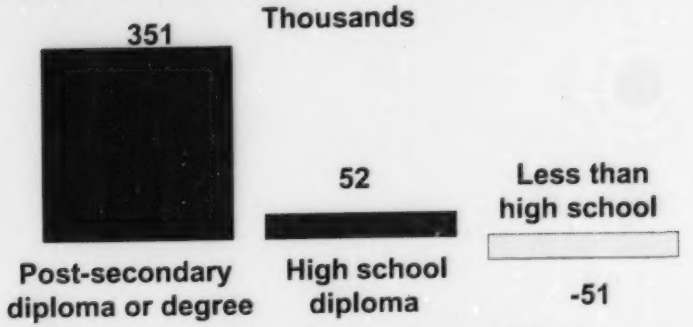
- Industrial Research Assistance Program (IRAP)
- Technology Partnerships Canada
- Networks of Centres of Excellence
- Industry Energy Research and Development program (Natural Resources Canada)
- Business Development Bank
- Agriculture and Agri-Food Canada's Matching Investment Initiative
- CANARIE
- PreCARN



Human capital is key to innovation...

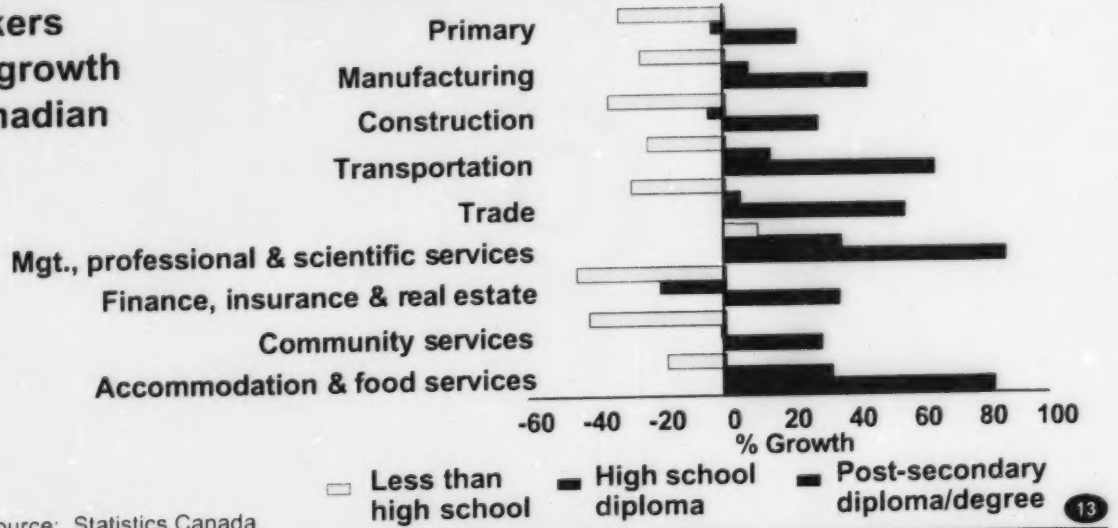
- The knowledge-based global economy is a reality, today:
  - Output is expanding fastest in the high-knowledge sectors of the economy.
  - For B.C. and Canada as a whole, knowledge workers dominate employment growth in all sectors of the Canadian economy.

Employment growth in B.C. by highest level of education attained, 1990-99



Source: Compilations based on Statistics Canada (LFS) data

Canada and the knowledge-based economy
Employment growth by educational attainment by sector, 1990-99

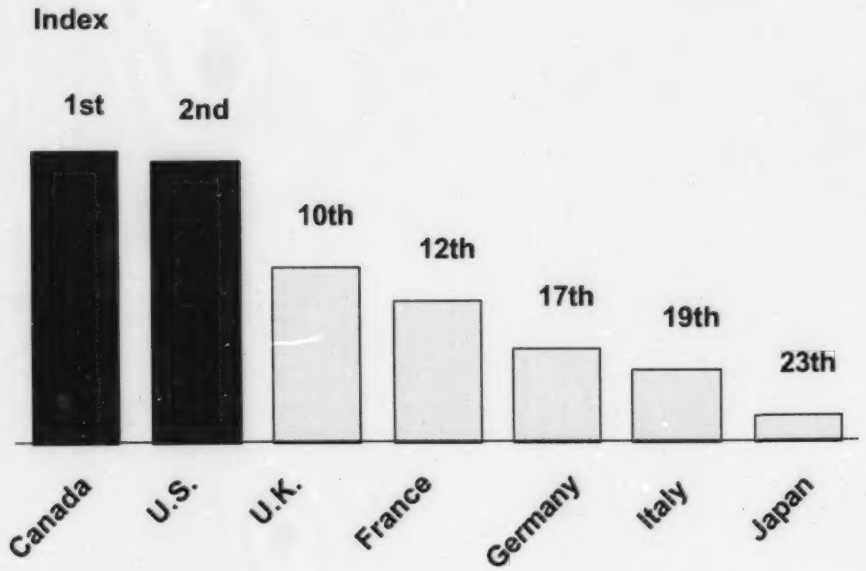


Source: Statistics Canada

...so to enhance our human capital advantage...

- Canada has a highly skilled workforce.
- However, Canada must be attractive to highly qualified personnel, because of intense global competition for skills.

Knowledge workers — World rank*



*Tertiary education enrollment among 59 countries considered in the Global Competitiveness Report 2000
Source: Global Competitiveness Report 2000

...we are investing in human resources

- **An innovative economy needs to attract, develop and retain the best and the brightest.**

Progress has been made

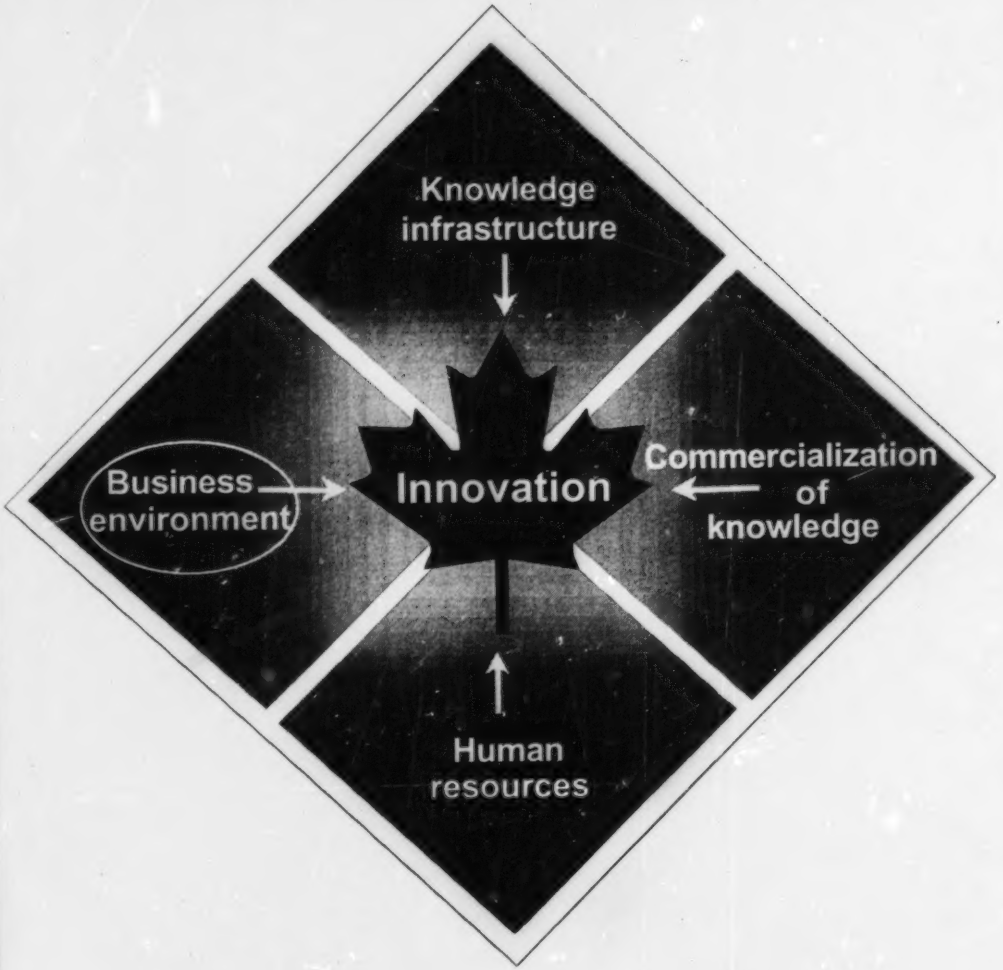
- Canada Research Chairs
- Millennium Scholarships
- Granting councils: funds for research training
- Increased tax exemptions for scholarships and bursaries
- Immigration of skilled workers
- Connectedness Agenda: SchoolNet, Community Access Program

To foster a more entrepreneurial business environment...

- **Canada must be seen to be open for business.**

Key initiatives

- Sound fiscal policy
- Modernizing business frameworks (e.g. bankruptcy, copyright, CBCA)
- Reductions in capital gains tax, and changed rules for rollover investments in start-up companies
- Changes to taxation rules for stock options
- Reductions in corporate income tax rates
- R&D tax incentives



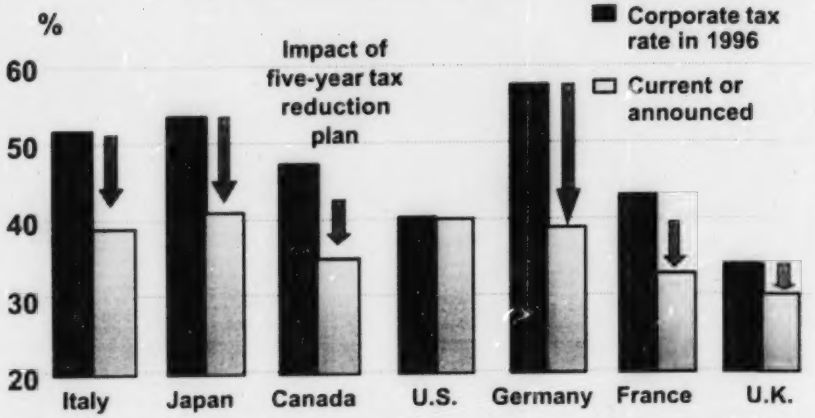
...the federal government has cut corporate taxes...

- **The federal government and some provinces have announced sharp cuts in corporate taxes, to take effect over a five-year period.**
  - **By 2005, the average Canadian corporate income tax rate will be roughly 5% points below that of the U.S. (including capital taxes).**

"The IMF staff commends the authorities for the comprehensive income tax reforms and reductions introduced in the 2000 Budget and in the October 2000 Economic Statement and Budget Update and strongly endorses the fiscal policy framework that has been put in place."

Statement of the IMF Mission on Canada,
January 31, 2001

Top statutory corporate tax rate



Rates effective by 2005, based on changes announced to January 2001.
Rates include the income tax rate equivalent of capital taxes, where this information is available.
Source: KPMG Corporate Tax Rate Survey (Jan 2000); Ernst&Young International Tax Services; OECD Tax Database; Department of Finance calculations

Top statutory corporate income tax rates (%)

	2000	2005
Canada		
• Federal-provincial average	43.0	31.8
- incl. capital taxes	46.6	35.4
United States		
• Federal-state average	39.0	39.0
- incl. capital taxes	46.6	35.4
Difference		
• Income tax rate	4.0	-7.2
- incl. capital taxes	6.6	-4.6

Source: Department of Finance

...reduced personal taxes...

- Personal Tax Cuts averaging 21% by 2004-05
- Lowering of the Capital Gains inclusion rate
- More generous treatment of employee stock options
- Tax-Free Rollovers on capital gains for small business

...and maintains a generous tax treatment of R&D

- **Canada provides a wide range of research support, technology transfer and market development.**
- **Canada's R&D tax treatment is very generous — immediate and full write-off for all expenditures in R&D capital equipment, and appreciable tax credits.**
- **Because of this, firms can significantly reduce R&D costs through direct investment or sub-contracting in Canada.**

"Canada's combined federal-provincial corporate income tax system remains the most attractive in its treatment of R&D. No country or state tax system examined*...can measure up to the attractiveness of R&D tax treatment in Canada and any of its provinces."

*Based on a comparison of the G-7, Australia, Mexico and Sweden

Conference Board of Canada, June 1999

Relative competitiveness of R&D tax system - 1998

The B-index represents a ratio of the after-tax cost of a $1 expenditure on R&D divided by 1 less the corporate tax rate. A lower B-index indicates a more competitive R&D tax system Source: Conference Board of Canada, June 1999.

The federal government will do more...

- **Throne Speech stresses innovative economy essential to creating opportunity for Canadians.**

- **Government:**

  - **wants Canada to become one of top five countries for R&D performance by 2010 and will at least double current federal R&D investment by 2010;**

  - **will continue to strengthen research capacity of universities, government laboratories and institutions;**

  - **will accelerate Canada's ability to commercialize discoveries, turning into new products, services; and,**

  - **will pursue a global science and technology strategy, supporting more collaborative international research at the frontiers of knowledge.**

The Government of Canada, for its part, will focus on: building a world-leading economy driven by innovation, ideas and talent...

Speech from the Throne
January 30, 2001

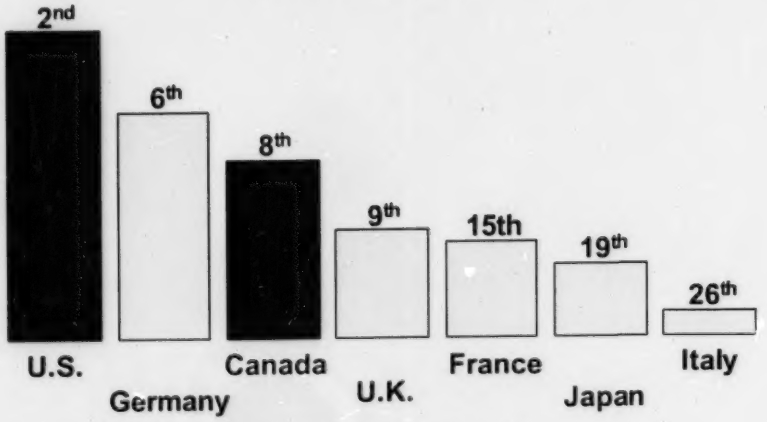
...but leadership from the business sector is also required

- **Business environment ranked 8th in world by World Economic Forum, and 3rd in G-7 after U.S. and Germany**
  - **Canadian business ranks 16th in corporate strategies, with low marks for product design and breadth of international markets.**

Rather than pursue competitive advantage through unique products and processes, Canadian firms, to too great an extent, pursue advantage through cheap raw materials or low-cost labour.

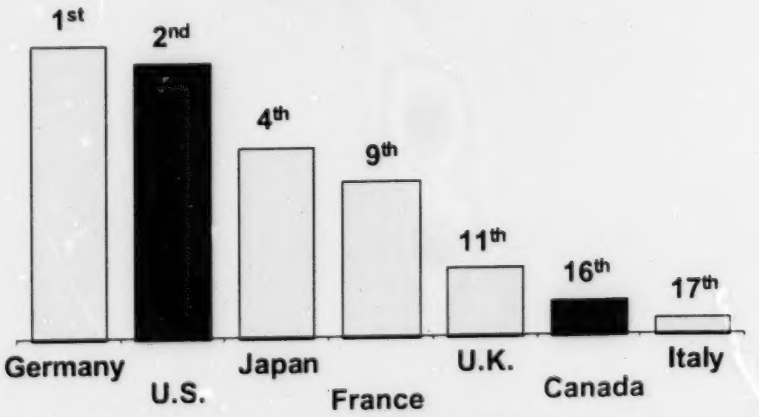
Roger Martin, Dean
Rotman School of Management
University of Toronto
September 1999

Microeconomic business environment
World rank



Source: The Global Competitiveness Report, 2000

Company operations and strategy
World rank

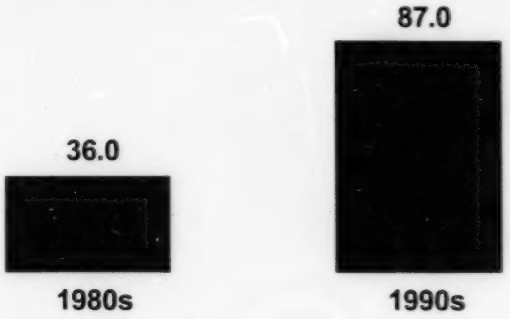


Source: The Global Competitiveness Report, 2000

And indeed, business is responding

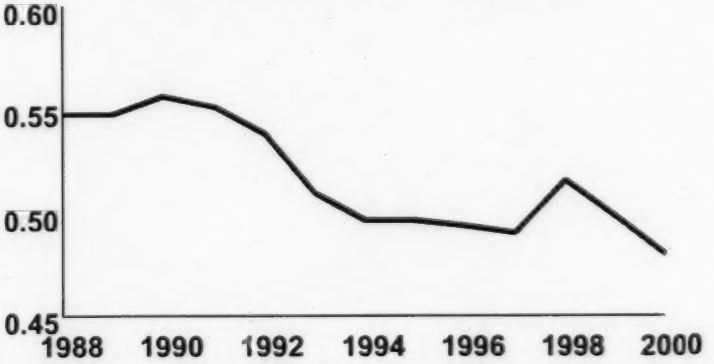
- **Canada's future success hinges on ability to take advantage of new opportunities associated with the KBE and to meet challenges of technological change.**
- **A recent Bank of Canada study shows that business restructuring intensified in the 1990s with some 87% of firms undertaking major restructuring.**
- **And, change and the adoption of "just-in-time" delivery is also evidenced by falling inventory-to-sales ratios.**

Percentage of firms with major restructuring*



* Restructuring included various operational changes as well as workforce adjustments. These encompass changes to the size and location of operations, narrowing the focus of business, as well as significant investments to alter methods of production.
Source: Kwan C., "Restructuring in the Canadian Economy: A Survey of Firms," Bank of Canada Review, Summer 2000.

Inventory to sales ratio* in manufacturing and trade



* Annual average based on quarterly data
Source: Industry Canada based on Statistics Canada's data

The way forward: Building on Canada's strengths

- **Much progress made over the last 10 years.**
- **Must continue to build on Canada's strengths:**
  - **Proximity and access to the U.S. market,**
  - **Human capital,**
  - **World-class research institutions,**
  - **Communications infrastructure,**
  - **Quality of life.**

"To secure our continued success in the 21st century, Canadians must be among the first to generate new knowledge and put it to use. Our objective should be no less than to be recognized as one of the most innovative countries in the world. Achieving this will require a comprehensive approach and the support and participation of all governments, businesses, educational institutions, and individual Canadians"."

Speech from the Throne
January 30, 2001